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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,440	06/18/2002	Erven Prigent	PRIGENT1	9156
7590 09/07/2004				
Gary M Cohen Strafford Building Number Three Suite 300 125 Strafford Avenue Wayne, PA 19102			EXAMINER YANG, CLARA I	
			ART UNIT 2635	PAPER NUMBER

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/088,440	<b>Applicant(s)</b> PRIGENT, ERVEN	
	<b>Examiner</b> Clara Yang	<b>Art Unit</b> 2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 June 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 and 18-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18, 19 and 21-29 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Drawings*

2. The drawings are objected to because of the following reasons:
  - ♦ Figs. 4 and 6: Per 37 CFR 1.83(a), when using boxes to represent conventional features disclosed in the description and claims, the boxes must be labeled.
  - ♦ Figs. 7 - 9: The drawings are objected to because the elements are labeled in French.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Allowable Subject Matter*

3. Claim 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The prior art of record fails to teach or suggest and remote switching system having a remote control module that sends: (1) a first activation/connection signal to two activation/deactivation modules when a wall switch is sensed to be closed, causing a first activation/deactivation module to turn on its appliance and a second activation/deactivation module to maintain its appliance in the "off" state; (2) a first deactivation/disconnect signal when the switch is subsequently opened, causing the first activation/deactivation module to maintain its appliance in the "on" state and the second activation/deactivation module to turn on its appliance; (3) a second activation signal when the switch is closed again, causing the first activation/deactivation module to deactivate its appliance and the second activation/deactivation module to maintain its appliance in the "on" state; and (4) a second deactivation signal when the switch is opened a second time, causing the first activation/deactivation module to maintain its appliance in the "off" state and the second activation/deactivation module to deactivate its appliance.

*Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7 and 29 recite the limitation "a retransmission module" in the fifth line of claim 7 and in the first line of claim 29. There is insufficient antecedent basis for this limitation in the claim since claim 1 only calls for (1) activation/deactivation means and (2) remote control means that remotely control the activation/deactivation means.

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 - 16, 18, 19, and 22 - 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,942,814 (Sutterlin et al.).

Referring to claim 1, Sutterlin teaches a remote control system, as shown in Fig. 2, (a) module 31 (i.e., activation/deactivation means) intended to be placed in series between power lines 36 and at least one electric device, such as television (TV) 35 or other lamps, to be activated/deactivated (see Col. 3, lines 4 - 15 and 17 - 22); and (b) module 30 (i.e., remote control means) for remotely controlling module 31 via switch 32 (see Col. 3, lines 4 - 10, 12 - 15, and 17 - 22). As shown in Fig. 1, module 30 includes: (c) sensing circuit 23 for detecting state changes in lamp 33 controlled by switch 32 (see Fig. 3 and Col. 2, lines 42 - 54); and (d) control circuit 21 and transceiver 20 for operating module 31 as a function of the detected state changes, wherein module 30 operates in the two following operating modes: (1) as a base mode activated by a single tap on said switch (see Col. 3, lines 17 - 19); and (2) at least one advanced mode, with the advanced mode being activated by at least the opening and closing of switch 32 that occur

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within two seconds, thereby causing lamp 33 to dim and transceiver 20 to transmit a control signal to activate a remotely located electrical device, such as TV 35 (see Col. 2, lines 55 – 67 and Col. 3, lines 12 – 15 and 19 – 22). Sutterlin is silent on opening and closing switch 32 by tapping a button/plate mounted on a faceplate. However, the Examiner takes Official Notice that push button/plate switches are well known as evidenced by U.S. Patent No. 2,794,890 (Taylor), U.S. Patent No. 4,737,609 (Yuhasz et al.), and U.S. Patent No. 4,833,339 (Luchaco et al.). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to open and close switch 32 by tapping a push button/plate switch because push plate switches are easier to use than snap-action switches (see Taylor, Col. 1, lines 24 – 31).

Regarding claim 2, Sutterlin teaches that module 30 detects state changes in lamp 33, which is controlled by switch 32 and must have at least one lighting socket (see Fig. 2, module 10 and lamp 13; and Col. 3, lines 4 – 10).

Regarding claim 3, Sutterlin discloses that module 31 connects power lines 36 to TV 35 (see Col. 3, lines 5 – 6) via AC plug 26 and receptacle 14 (i.e., power plug) for receiving plug 26 (see Fig. 2 and Col. 2, lines 9 – 19). Hence, module 31 is an outlet plug.

Regarding claim 4, as shown in Figs. 1 and 2, module 30 is a single local control module that is installed on lamp 33, which is controlled by switch 32.

Regarding claim 5, Sutterlin's system, as shown in Fig. 2, comprises a module 30 (i.e., a local control module) having a transceiver 20 (i.e., means for transmitting at least one control signal) and at least one module 31 (i.e., an activation/deactivation module) that is remote from module 30 and also has a transceiver 20 for receiving at least one control signal (see Fig. 1, transceiver 20; Col. 2, lines 23 – 23 – 30; and Col. 3, lines 1 – 15 and 17 – 22).

Regarding claim 6, Sutterlin teaches that the system comprises a plurality of modules 31, wherein each module 31 activates and deactivates one distinct electric device, such as lamps or TV 35 (see Col. 3, lines 17 – 22).

Regarding claims 7, 8, and 29, per Sutterlin, module 30's sensing circuit 23 senses the position of switch 32 and provides signals representative of switch 32's state to control circuit 21 (see Col. 2, lines 31 – 35 and Col. 3, lines 4 – 5); hence sensing circuit 23 is understood to be a retransmission module. Sutterlin adds that control circuit 21 provides signals to switch 27 and transceiver 20 upon receiving sensing circuit 23's signal, causing switch 27 to open or close based on switch 32's position and transceiver 20 to transmit control signals to module 31's transceiver 20 via power lines 36 (see Col. 2, lines 23 – 35 and Col. 3, lines 4 – 12); hence module 30's control circuit 21 and transceiver 20 are understood to form a remote control module, wherein module 30's transceiver 20 controls module 31's switch 27. Module 31's transceiver 20 receives the control signals transmitted by module 30 (see Col. 2, lines 23 – 26 and Col. 3, lines 7 – 12).

Regarding claim 9, Sutterlin's system comprises a multiplicity of modules 31, each activating and deactivating an electric appliance (see Col. 3, lines 17 – 22).

Regarding claims 10 and 11, Sutterlin's module 30 is connected to lamp 33, which is placed in series between power lines 36 and switch 32, and has a switch 27 (i.e., other activation/deactivation means) operated by control circuit 21 to activate and deactivate lamp 33 (see Col. 2, lines 42 – 54 and Col. 3, lines 4 – 12).

Regarding claim 12, per Sutterlin, module 31 is also able to perform as a remote control module (see Col. 3, lines 15 – 19); hence module 31 is understood to be a remote control module

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as well as an activation/deactivation means. As explained in claim 9, Sutterlin's system comprises a multiplicity of modules 31, each activating and deactivating an electric appliance.

Regarding claims 13 and 14, Sutterlin teaches that transceiver 20 transmits and receives control signals, on to and from power lines (see Col. 2, lines 23 - 26). Because the control signals in the base mode reflect the current state of switch 32, the control signals are understood to be state signals when switch 32 is operated in the base mode. The coupling of the receive and transmit signals to and from the power line is a known configuration used to facilitate the high frequency communications signals without interference from the 60 Hz power signal (see Col. 4, lines 6 -10). High frequency, as defined by the 7<sup>th</sup> edition of *The Authoritative Dictionary of IEEE Standards Terms*, is the radio frequency band between 3 - 30 MHz. Though Sutterlin fails to teach superimposing ultra high frequency (UHF) signals (i.e., 300 MHz - 3 GHz) on the 60 Hz power signal, the Examiner takes Official Notice that the use of UHF signals is well known. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to superimpose UHF signals instead of high frequencies on the 60 Hz power signal because UHF signals will not receive interference from the 60 Hz power signal, which is desirable as taught by Sutterlin (see Col. 4, lines 6 -10).

Regarding claims 15 and 19, Sutterlin teaches that transceiver 20 within module 30 transmits a signal to module 31's transceiver 20 when switch 32 is closed and lamp 33 lights, causing module 31 to supply current to TV 35 or other appliance (see Col. 3, lines 4 - 12). Because module 30's signals to remotely activate and deactivate TV 35 indicate the state of switch 32 (see Col. 1, lines 48 - 51), it is understood that module 30's connection signal to activate TV 35 is a high state signal and that module 30's disconnection signal to deactivate TV 35 is a low state signal.

Regarding claim 16, Sutterlin's sensing circuit 23 and control circuit 21 assess the state of a switch, which is at least a part of the system (see Col. 2, lines 31 - 35 and 42 - 54).

Regarding claim 18, Sutterlin discloses that module 30's control circuit 21 can be programmed to dim lamp 33 (or operate in an advanced mode) once switch 32 is closed (see Col. 2, lines 55 - 62). Because the advanced mode occurs only when switch 32 is already closed, module 30 must automatically return to base mode (i.e., the mode of turning on lamp 33 when switch 32 is closed) after dimming lamp 33 via the opening and closing of switch 32 within two seconds.

Regarding claim 22, Sutterlin teaches that by closing switch 32, module 30 activate other modules 31 so that other lamps are turned on. This is understood to be a base mode. When switch 32 within two seconds after all lamps are on, module 30 causes lamp 33 and the other lamps to dim while activating another device, such as TV 35 (see Col. 3, lines 17 - 22). This is understood to be an advance mode. By dimming lamp 33, lamp 33 is deactivated during the advance mode.

Regarding claim 23, Sutterlin teaches dimming lamp 33 and other lamps while turning on TV 35 by opening and closing switch 32 within two seconds (see Col. 3, lines 17 - 22). Here it is understood that the opening and closing of switch 32 causes module 30 to transmit a transition signal. Though Sutterlin omits specifically teaching that module 30 is able to transmit a second transition signal, such as one that causes lamp 33 and the other lamps to turn on while turning off TV 35, Sutterlin does disclose that numerous other possibilities and combination can be achieved with modules 30 and 31 (see Col. 3, lines 23 - 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify module

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30 such that it is able to transmit a second transition signal because a second transition signal provides a user with enhanced remote control of appliances via switch 32.

Regarding claim 24, Sutterlin teaches dimming lamp 33 and other lamps by opening and closing switch 32 within two seconds (see Col. 3, lines 17 - 22). It is understood that the signal transmitted by module 30 to cause lamp 33 and the other lamps to dim/deactivate is an initialization signal since all lamps will be in the same deactivated state upon receipt of the signal.

Regarding claim 25, Sutterlin teaches that module 31's transceiver 20 (i.e., activation/deactivation means) receives signals from module 30, causing module 31's control circuit 21 to connect or disconnect TV 35 to or from power lines 36 via switch 27 based on the received signals (see Col. 3, lines 4 - 12). Because module 31 only controls TV 35 or other appliance when a signal is received, module 31's regulation of the appliance is understood to be discontinuous.

Regarding claims 26 and 27, Sutterlin's system includes module 30 (i.e., the remote control means), which is a local control module as well as a remote control module since module 30 controls a local appliance (e.g., lamp 33) and at least one remote appliance (e.g., TV 35 and/or other lamps) according to the opening and closing of switch 32 (see Col. 3, lines 4 - 10 and 17 - 22).

Regarding claim 28, Sutterlin's system also includes at least one module 31 (i.e., activation/deactivation module) (see Col. 3, lines 4 - 12 and 17 - 22).

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,942,814 (Sutterlin et al.) as applied to claim 19 above, and further in view of U.S. Patent No. 5,731,664 (Posa).

Regarding claim 21, Sutterlin is silent on the connect and disconnect signals being identical.

In an analogous art, Posa's remote switching system, as shown in Fig. 1, 2A, and 2B, comprises: (a) transmitter module 132 or remote control means having means 202 for detecting state changes (see Col. 3, lines 8 – 34 and 42 – 52; and Col. 4, lines 60 – 65); and (b) receiver module 160 or activation/deactivation means. Per Posa, the transmitter module also has pulse generator 206 and light emitting diode (LED) 208 for operating the receiver module (see Col. 4, lines 20 – 29). Posa also teaches that a single pulse is used to cause the electric appliance connected to the receiver module to power-up and power-down (see Col. 5, lines 1 – 16).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sutterlin's module 30 as taught by Posa because using a single pulse to represent a connect signal and a disconnect signal conserves power (see Posa, Col. 4, line 67).

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- ♦ U.S. Patent No. 3,590,271 (Peters): Peters teaches the use of radio frequency (RF) to enable a user to use a wall switch to control remote appliances.
- ♦ U.S. Patent No. 4,322,632 (Hart et al.): Hart teaches circuitry for applying electrical power to one or more appliances under control of a remotely located manually operable switch.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (571) 272-3062. The examiner can normally be reached on 8:30 AM - 7:00 PM, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (571) 272-3068. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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BRIAN ZIMMERMAN  
PRIMARY EXAMINER